



St Joseph's Institution
2023 Year 1 Geography
Term 3 Weighed
Assessment

Name: _____ ()

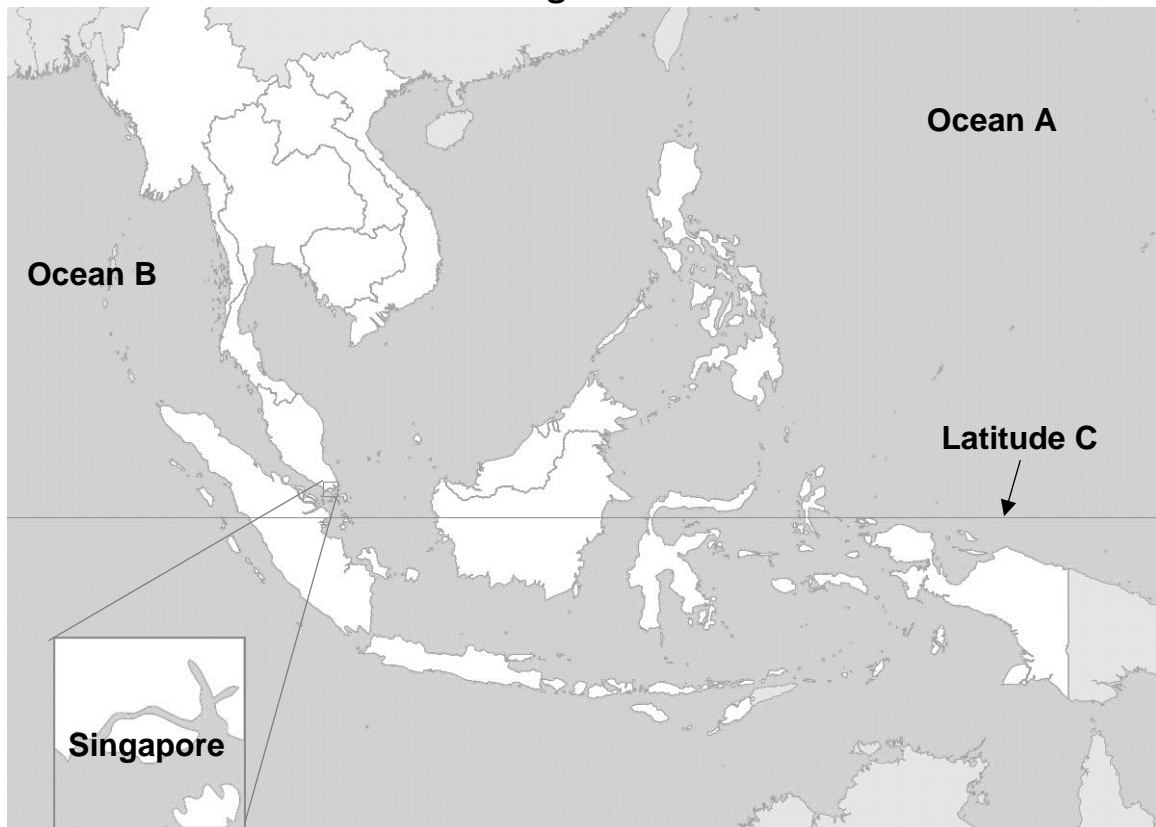
Class: _____

Date: _____

Instructions: Answer all questions in the spaces provided.

1. Figure 1 shows the map of Southeast Asia.

Figure 1



Source: <https://aseanup.com/free-maps-asean-southeast-asia/>

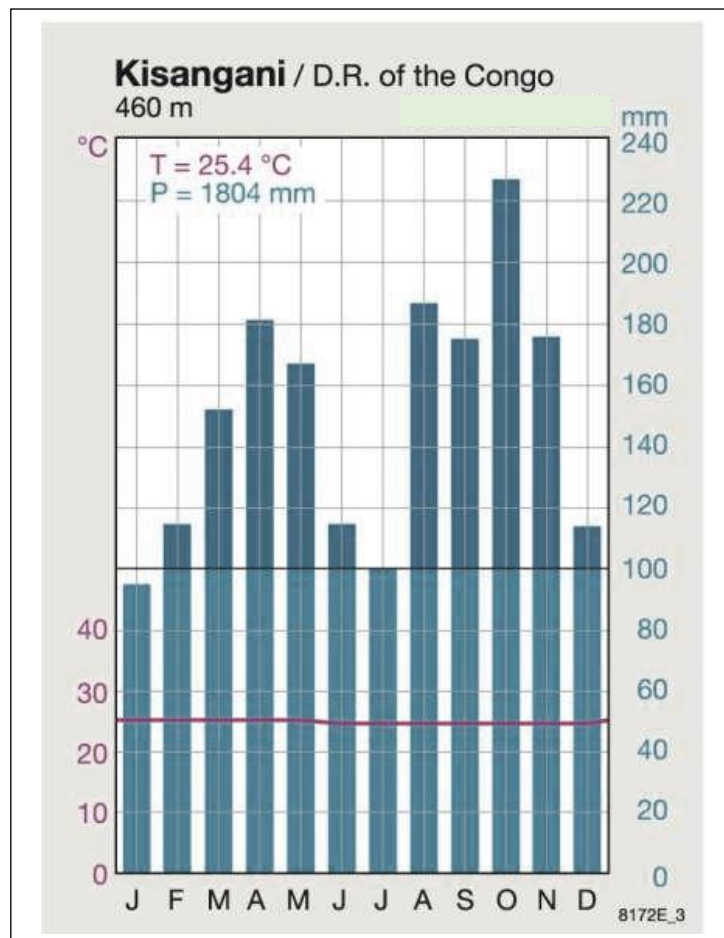
Study Fig. 1 and identify the following:

[3]

- (i) Ocean A: *Pacific Ocean*
- (ii) Ocean B: *Indian Ocean*
- (iii) Latitude C: *Equator*

2. Figure 2 shows a climograph of Kisangani in D.R. of the Congo.

Figure 2



Source: <https://teleskola.mt/>

- (a) Study and use Figure 2 (must use the data from the figure) to provide one piece of evidence (state) to show that Kisangani, DR of Congo is located along the Equator. [1]

- The uniform temperatures every month/Constantly high temp all year
- The high uniform (25.4°C) temperatures year-round.

[Award 1m for 1 evidence.]

- (b) Study and use Figure 2 [Must use data] to describe (factual) the distribution of precipitation of Kisangani, DR of Congo. [3]

General statement (POINT)

- Well-distributed throughout the year

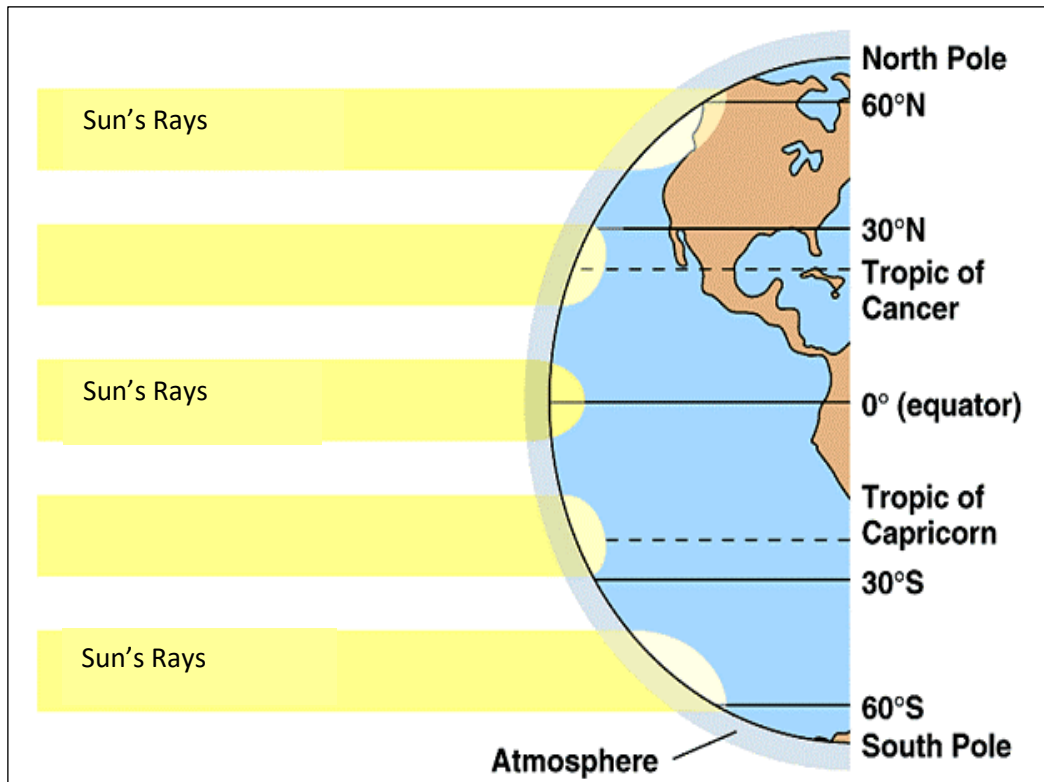
Specific statements (ELABORATION & EVIDENCE)

- High total annual precipitation of 1804mm
- Highest precipitation is 230mm in October and lowest precipitation is 96mm in January
- The 3 months with the highest rainfall was in, Has three peaks in April (182mm), August (188mm) and October (230mm)

- Has 5 months with low precipitation – January (96mm), July (100mm), February, June and December with 115mm
[Answers must include general statement and any two other specific statements. Max 2m awarded for lack of mention of general trend.]

3. Figure 3 shows the relationship between the sun and the earth.

Figure 3



Source: <https://sageography.co.za/>

(a) Study and use Figure 3 to explain why (reasons) there is differential heating at the Equator and at 60° North and South Latitudes. [2]

- Angle of radiation hitting Earth: At low latitudes (Equator), the solar radiation is more direct (i.e. overhead sun is at 90 deg) compared to higher latitudes (60° N/S), where the solar radiation hits Earth at a lower angle.
- Earth's surface exposed to solar radiation: At the Equator, solar radiation is concentrated over a smaller surface, leading to higher temperatures at Equator, whereas at 60° N/S, the sun's energy is spread out over a larger surface, resulting in lower temperatures received.
- Volume of atmosphere: At lower latitudes, volume of the atmosphere is small, therefore, less solar radiation is scattered or absorbed by the atmosphere and more will reach the Earth's surface at higher temperatures, compared to higher latitudes, volume of the atmosphere is larger, therefore, more solar radiation is scattered or absorbed by the

atmosphere, resulting in less solar radiation reaching earth's surface at lower temperatures.

- **The curvature of the Earth's surface:** This resulted in the solar radiation hitting the Earth's surface at different angles across latitudes and varying the intensity of solar radiation reaching the Earth's surface.
[Award 1 mark for each point. Total of 2 marks.]

- (b) Other than **latitude**, **explain** one other factor that influences temperatures. [2]
[Climatic factors]

[POINT] Altitude/ Distance from the sea/ Cloud cover

[Award 1 mark for each point and 1 mark for explanation.]

Altitude [1] The higher the altitude the lower the temperature because....

Temperature decreases with **altitude**, which is the height of a place in relation to the sea level. Temperature decreases with altitude mainly because the atmosphere is mostly heated by the earth's surface.

Distance from the sea [1] The further you are from the sea,

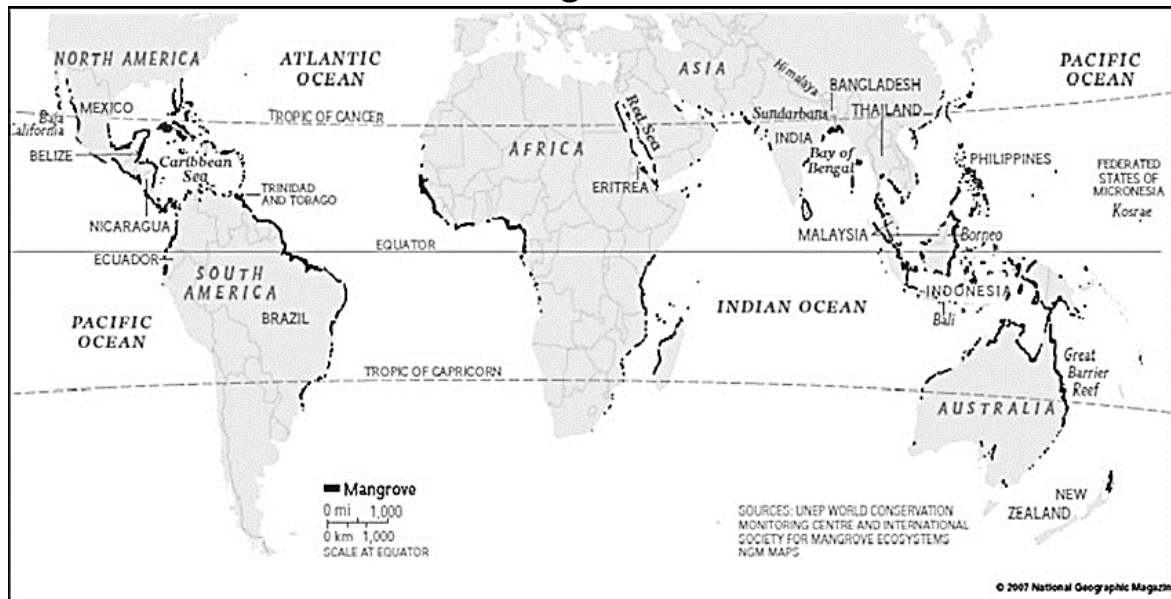
The sea heats up and cools down more slowly than the land. The difference in the rate of heating and cooling of the sea and the land affects the temperature of the coastal and inland areas.

Cloud cover

Locations in the Tropics with Higher Cloud coverage can block light and heat from the Sun, making Earth's temperature cooler. Some heat from the Sun does get down to Earth. Clouds can trap that heat from the Sun. At night, when there's no sunlight, clouds are still trapping heat.

4. Figure 4 shows the distribution of tropical mangrove forests in the world.

Figure 4



Source:

<https://www.researchgate.net/publication/49141825/figure/fig4/AS:667126583001088@1536066780046/Global-distribution-of-mangroves-National-Geographic-Magazine-2007.jpg>

- (a) Study and use Figure 4 to **describe the spatial distribution (geog location)** of tropical mangrove forests. [3]

- **[GENERAL (POINT)]** The tropical mangrove forests are located in the **tropical and subtropical regions** and are **mainly found along the coastlines**.
[SPECIFIC (EVIDENCE & ELABORATION)]
 - Most tropical mangrove forests can be found in **Asia [Continent]**, along the coastlines of **Malaysia, Indonesia, Thailand and the Philippines**.
[Countries]
 - Most tropical mangrove forests can be also found in **Central and South America [Continent]** – along the coastlines of **Ecuador, Nicaragua, Belize, Mexico**. **[Countries]**
 - Less concentration found along the **northern coastline** of **Australia** all the way down the east coast
 - Less concentration found along the **western and Southeast coastlines** of **Africa**
- [Award 1 mark for General statement, award 2 marks for any 2 Specific statements.]**

- (b) What is the **difference** between **spatial (geog location) adaptation (how they change)** of the tropical rainforests and the tropical mangrove forests? [1]

- The plants in the tropical rainforests adapt to the climatic conditions **vertically**, whereas the plants in the tropical mangrove forests adapt to its environment **horizontally**.

